

REMARKS

Applicants respectfully request a continued examination of the subject application as amended herein. This Amendment is submitted in response to the Office Action mailed August 21, 2007. Claims 1, 2, 4-22, 37-40, 42-60, 99-102 and 105-114 are pending. In this Amendment, claims 1, 37, and 111 are amended. No new matter is added by the amended claims.

Rejections under 35 U.S.C. § 102

Claims 1, 2, 5-8, 22, 37, 38, 40, 56, 58-60, 105, and 111-114 are rejected under 35 U.S.C. 102(b) as being anticipated by Akita (WO 2001-62517).

Independent claims 1, 37 and 111

Independent claim 1 requires:

1. An apparatus comprising:
 - a strap including a first substrate with an embedded integrated circuit, the integrated circuit having a conductive pad, the integrated circuit being embedded in an opening provided in the first substrate;
 - a thin-film planarization dielectric layer having a thickness less than 10 microns and being patterned with at least two vias, the thin-film planarization dielectric layer formed directly over a portion of the integrated circuit and a portion of the first substrate; and
 - a conductive medium, covering at least a portion of the integrated circuit and a portion of the first substrate extending beyond edges of the integrated circuit, formed directly over the thin-film dielectric layer and attached to the conductive pad through at least one of the vias via a contact hole, the conductive medium having a greater surface area than the conductive pad and is a conductive paste containing silver and wherein the conductive medium fills the at least two vias and wherein the conductive medium contacts the conductive pad through the at least one of the vias; and
 - a large-scale component attached to the conductive medium, the large scale component electrically coupled to the integrated circuit through the at least one of the vias, the large scale component including a second substrate, and the second substrate being larger than the first substrate.

As amended, claims 1, 37, and 111 now require similar limitations as noted above. Specifically, a conductive medium is formed directly over the thin-film dielectric layer and also fills at least two of the vias making contact with the conductive pad or integrated circuit, as shown in Figure 1 and described on page 14, paragraph [043] and [044] of the specification.

Akita only shows a small portion of conductive paste 21 connected to a UBM layer 19 and an aluminum electrode 12a, as depicted in Figure 12 of Akita. The conductive paste 21 in Akita is not formed directly over a thin-film dielectric layer while also filling at least two vias extending through the thin-film planarization layer, as shown in Figure 1 and described in paragraph [044], paragraph [058] of the specification.

Therefore, Akita does not anticipate each and every element of claims 1, 37, and 111.

Furthermore, Applicants re-asserts the arguments presented in the previous response to the Office Action (February 26, 2007) and respectfully disagrees that independent claims 1, 37 and 111 are anticipated by Akita.

As previously emphasized, the epoxy resin in Akita is a “photosensitive” epoxy resin, while Applicants claim a “thin-film” planarization layer. An epoxy resin is applied using a non-vacuum process, generally at or near atmospheric pressure as known by one skilled in the ordinary art, while a “thin-film” is applied through the use of vacuum or low-pressure processes. Therefore, a “thin-film planarization layer” is distinct from a thick-film epoxy resin layer.

Applicants have amended the claims to further distinguish a “thin-film” planarization process from an epoxy resin process in Akita. As amended, the thin-film planarization layer must be less than 10 microns, as described on page 20, paragraph [057] of the specification.

The Examiner previously cited *In re Boesch* 205 USPQ 215,219 (CCPA 1980), of the previous Office Action mailed August 21, 2007. The Examiner relies upon this case law to show the optimization of ranges of a result-effective variable being routine experimentation.

However, *In re Boesch*, 205 USPQ 215 (CCPA 1980) involved a situation where the prior art suggested proportional balancing to achieve desired results in the formation of an alloy.

In contrast, none of the prior art relied upon for rejection (Akita, Fjelstad) suggests proportional balancing of planarization layers or balancing the thicknesses of a conductive medium (related to claim 106). Therefore, *In re Boesch* is distinguished upon the facts.

Applicants maintain that a thin-film planarization layer is not the same as a thick-film epoxy resin layer and serves a critical purpose of allowing easy removal for the patterning of vias as described on page 21, paragraph [059] of the specification.

For at least the reasons explained above, Applicants respectfully submit that Akita fails to anticipate all the elements as claimed and respectfully request the withdrawal of the claim rejections.

Dependent claims 2, 5-8, 22, 38, 40, 48, 56, 58-60, 105, 112, 113, 114

Claims 2, 5-8, 22, 38, 40, 56, 58-60, 105, 112, 113, and 114 depend from independent claims 1, 37 and 111 and incorporate all their features.

With respect to claims 112, 113, and 114, the glass passivation layer 22 of Akita does not extend beyond the edges of the integrated circuit as seen in Figure 12 of Akita.

For at least this reason, Applicants respectfully submit they are not anticipated by Akita and respectfully request the withdrawal of the claim rejections.

Rejections under 35 U.S.C. § 103

Claims 9 and 57 are rejected under 35 U.S.C. §103(a) as being unpatentable over Akita.

Claims 9 and 57 depend from independent claim 1 and 37. As described above, Akita fails to anticipate each and every element of independent claims 1 and 37 as amended. Applicants respectfully submit the features as claimed are not obvious to one of ordinary skill in the art at the time of Akita's disclosure. Applicants respectfully submit there is no basis for one of ordinary skill in the art to conceive the combination of elements in view of Akita, and the rejection is based on impermissible hindsight reconstruction. For at least this reason, Applicants respectfully submit claims 9 and 57 are patentable in view of Akita and respectfully request the withdrawal of the claim rejections.

Claim 106 is rejected under 35 U.S.C. §103(a) as being unpatentable over Akita.

Claim 106 depends from independent claim 1. As described above, Akita fails to anticipate each and every element of independent claim 1 as amended. Applicants respectfully submit the features as claimed are not obvious to one of ordinary skill in the art at the time of Akita's disclosure. Applicants respectfully submit there is no basis for one of ordinary skill in the art to conceive the combination of elements in view of Akita, and the rejection is based on impermissible hindsight reconstruction. For at least this reason, Applicants respectfully submit claim 106 is patentable in view of Akita and respectfully request the withdrawal of the claim rejections.

Claim 107 is rejected under 35 U.S.C. §103(a) as being unpatentable over Akita in view of Fjelstad (U.S. Pat. No. 6, 211,572).

Claim 107 depends from independent claim 1. As described above, Akita fails to

anticipate each and every element of independent claim 1 as amended. Fjelstad fails to teach or suggest the features as claimed in independent claim 1 and thus fails to cure the deficiency of Akita. For at least this reason, Applicants submit that claim 107 is patentable over Akita in view of Fjelstad and respectfully request the withdrawal of the claim rejection.

CONCLUSION

Applicants respectfully submit that in view of the amendments and arguments set forth herein, the rejections herein have been overcome. Accordingly, it is believed that all pending claims define the subject invention over the prior art of record and are in condition for allowance. If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact the undersigned at (408) 720-8300.

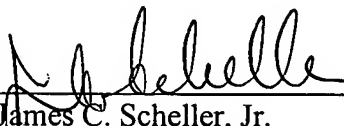
Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due.

Respectfully submitted,

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Dated: October 19, 2007



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